

CONTRIBUTIONS AND ORIGINAL ARTICLES.

THUNDERSTORMS OF MAY 3, 1892, IN NEW YORK STATE.

[By Mr. E. T. TURNER, Meteorologist to the New York State Weather Service.]

This system of storms was of unusual severity and magnitude. At 8 a. m. an area of high pressure, 30.20, lay off the Florida coast, and a trough-like depression extended from Texas over the Upper Lakes, with lowest pressure, 29.70, over Iowa. At 8 p. m. the center of disturbance lay to the north of Lake Huron, with pressure 29.54. From the Atlantic coast over New York to the Great Lakes the pressure had decreased 0.20 inch. At 2 p. m. the temperature was about 10° above the normal in the western part of the state, and ranged from 74° near Lake Ontario to 78° on the southern border. The weather was also unusually warm in the northern part of the state, while on the coast it was several degrees below the normal. At 2 p. m. the winds were light and southerly, with a westerly component in the section west of the central lakes, and an easterly component at a great number of stations in the eastern section. At 8 and 9 p. m. the wind-directions were nearly the same as at 2 p. m., both in the front and rear of the storm.

During May 1st and 2d the sky had been overcast, and general rains occurred on both days. Thunderstorms were reported from Humphrey, Cattaraugus Co., on the 1st and 2d, and from Long Island on the 2d. At 7 a. m., 3d, the sky was generally overcast, excepting in the central part of the southern section and in the western Saint Lawrence valley, where the cloudiness ranged from 5 to 6 (scale 10). At 2 p. m. the sky continued overcast in the western section and northern highlands; elsewhere the cloudiness had decreased, and at Ithaca the cloudiness was 5 cumulus moving west.

The storm was first reported from stations near the Niagara River between 1.30 and 2 p. m. It was last noted on the eastern border of the state about midnight, and on central Long Island about 2 a. m., 4th. The storm-front was not continuous, and presented many local variations of character and intensity; but the general line of advance extended over the state in a direction from southwest to northeast, the extremity near Lake Ontario being constantly in advance of the southern portion at the Pennsylvania border. There is evidence that the center of the storm, or convex front, moved over or near Lake Ontario at a rate of about 50 miles per hour in an east-northeast direction, and continued in that direction to Lake Champlain. This direction of the storm-center is not the usual one, and more data is needed to verify it. If this supposition is correct, a series of electrical disturbances which occurred in the northern part of the state between 5 and 8 p. m. fall into the general storm system; otherwise they must be regarded as isolated storms.

The most detailed account of the conditions attending the storm are furnished by self-recording instruments at the Ithaca station, as follows: The pressure had fallen from 29.148 at 8 a. m., 3d, to 28.980 at 5.30 p. m., when the storm reached the station and rain began. At 6.05 p. m. there was an increase of pressure of .07 inch in 15 minutes, during the heaviest rainfall. At

7 p. m. the pressure had decreased .03 inch. The temperature was 50° at 6 a. m., reached a maximum of 77° at 2 p. m., and remained nearly stationary until 6.05 p. m. At that time a fall of 15° occurred in 10 minutes. From 7 to 8 p. m. the temperature remained nearly stationary at 62°. No rain fell until 6.05 p. m. From 6.05 to 6.15 p. m. 0.52 of rain fell, and from 6.15 to 7.00 p. m. about 0.20 inch fell. During the afternoon the wind was from the south, the velocity being 8 to 12 miles per hour. At 6 p. m., immediately in advance of the storm, the wind changed to westerly, blowing out from the storm, and the velocity increased to 36 miles per hour. Soon after the storm-front reached the station the wind shifted to east, and it remained in that quarter one hour.

Thermograph records at other stations, Dunkirk and Arkwright, Chautauqua Co. (The Arkwright station is located near a hill top, 5 miles southeast of and 670 feet above Dunkirk.) A comparison shows the superheated condition of the surface air, and also that the temperature fell to the same point, 60°, during the storm. At Dunkirk the temperature at 6 a. m. was 50°, and the maximum, 78°, occurred at 12.30 p. m. At 1.45 p. m. a fall of 15° occurred in 10 minutes, and at 2.30 p. m. the temperature was 60°. At Arkwright the temperature at 6 a. m. was 55°, maximum 72° at 2.15 p. m. Between 3 and 3.50 p. m. the temperature fell from 72° to 60°. (The long interval between the phenomena at the two stations may be due to errors of thermograph clocks). At Hess Roads Station, on the shore of Lake Ontario, 65 miles north-northeast from Dunkirk, the temperature at 6 a. m. was 45°, maximum 74° at 1.35 p. m., temperature 70° at 2.15 p. m., 65° at 2.30 p. m., and 63° at 3.25 p. m. At other stations the greatest fall in temperature occurred on the western border of the state, where it amounted to 26°. As the storm moved eastward the fall became less; in the central lake region it amounted to about 17°, and on the eastern border of the state was 2° to 5°. This difference was probably due, in part, to the nocturnal cooling of the surface air.

There was a great local variation in the rainfall attending the storm. The amount in the central and western parts of the state averaged about 0.50 inch, the greater part probably falling within a few minutes after the commencement of the storm. The rainfall was somewhat greater in the eastern part of the state, where the shower was of longer duration. The only part of the state where no rain fell was the northern portion of the Saint Lawrence Valley, and in the northern Adirondacks. Hail the size of peas was reported at three-scattered stations: Eden, Oswego, and Fleming. The wind force showed great local variations, and cannot well be summarized. The maximum velocities were all entered under the head "during the storm," with the wind blowing from the west, or out from the storm.

Chart V, with this number of the REVIEW, shows the line of advance of the thunderstorms of May 3, 1892, the storm-intensity in the different parts of the state, and the location of storms which occurred in advance of the main disturbance.

METEOROLOGICAL TABLES.

Meteorological record of Army post surgeons, voluntary, and other co-operating observers, May, 1892.

Stations.	Temperature. (Fahrenheit.)			Precip'n.	Stations.	Temperature. (Fahrenheit.)			Precip'n.			
	Max.	Min.	Mean.			Max.	Min.	Mean.				
Alabama.	o	o	o	Ins.	Alabama—Cont'd.	o	o	o	Ins.			
Bermuda *† ⁵	88	46	71.0	1.00	Newburgh †	87	42	68.3	3.59			
Bessemer.	90	44	71.1	2.86	Newton †	90	50	71.5	0.36			
Brenton†.	95	44	69.1	3.50	Opelika †	94	42	70.0	2.72			
Carrollton*† ¹	89	50	70.7	3.20	Oxanna*† ¹	84	42	68.3	4.10			
Chepultepec*†	79	45	.....	2.10	Pine Apple†	96	45	73.1	3.11		
Citronelle†	86	50	74.2	1.97	Pittsburgh†	90	54	74.8	1.50			
Claiborne Landing†	.....	.....	3.90	Pushmataha†	89	47	69.7	8.94		
Cordova†	.....	.....	2.72	Selma a†	.....	.....	3.23	.....			
Daphne†	96	51	75.1	1.15	Scottsboro†	88	41	67.8	4.57			
Decatur a†	.....	.....	2.71	Sturdevant†	.....	.....	3.57	.....			
Decatur b†	92	39	68.5	2.29	Talladega†	.....	.....	3.00	.....		
Double Springs† ¹	83	47	67.6	3.36	Tallasseet Falls†	.....	.....	2.52	.....		
Eufaula a†	96	45	74.2	3.31	Thomasville†	93	46	72.0	6.17			
Eufaula b†	94	43	71.5	.....	Tuscaloosa†	.....	.....	2.92	.....		
Evergreen†	90	46	72.4	2.83	Tuscumbia a† ¹	89	50	69.3	3.35			
Fayette C. H. †	87	45	69.6	3.68	Union Springs a†	93	42	72.2	1.70			
Florence a†	.....	.....	3.46	Union Springs b†	94	44	74.0	3.42		
Florence b†	89	42	68.8	3.43	Valley Head†	85	44	66.0	4.39			
Fort Deposit†	98	45	73.2	1.62	Walker Springs†	94	50	77.3	5.39			
Gadaden†	.....	.....	2.22	Warrior†	.....	.....	4.50	.....			
Geneva†	100	51	75.6	1.08	Wiggins†	98	45	74.4	1.56			
Greensborough†	88	46	70.9	3.88	Wilsonville†	.....	.....	3.23	.....		
Healing Springs†	93	36	69.0	4.75	Alaska.	.....	.....	.....	.....
Highland Home†	90	48	72.4	2.86	Killianot† ¹	68	34	44.8	3.25			
Jasper†	86	40	66.4	3.29	Metlakatla†	68	34	50.4	5.90			
Jenison.	87	53	73.2	3.65	Arizona.	.....	.....	.....	.....
Livingston a† ¹	86	44	69.3	4.92	Ariz. Can. Co. Dam.†	105	47	74.6	0.41			
Livingston b†	90	45	70.7	5.03	Benson* ¹	105	50	73.0	0.00			
Lynn†	.....	.....	3.90	Bisbee†	92*	40	66.6	0.00		
Marion†	91	44	70.8	1.99	Calabasas†	94	34	66.0	0.04			
Maysville†	83	47	66.0	5.93	Casa Grande* ¹	105	54	77.9	0.34			
Mountain Home†	89	40	67.2	3.73	Chiricahua Mts†	.....	.....	0.00	.....		
Mount Willing†	89	45	72.0	3.95	Crittenden* ¹	97	37	67.3	0.36			

Meteorological record of voluntary observers, &c.—Continued.

Stations.	Temperature. (Fahrenheit.)			Precip'n.	Stations.	Temperature. (Fahrenheit.)			Precip'n.			
	Max.	Min.	Mean.			Max.	Min.	Mean.				
Arizona—Cont'd.	o	o	o	Ins.	Dos Cabezas* ¹	82	50	67.2	T.			
Dragon Summit* ¹	93	60	75.2	0.04	Dudleyville†	103	40	71.0	0.38			
Farley's Camp.	96	50	74.8	0.25	Flagstaff* ¹	84	21	50.7	7.55			
Florence†	105	43	73.0	0.45	Fort Apache	88	28	50.8	0.30			
Fort Bowie	92	40	67.2	0.00	Fort Grant	93	34	66.0	0.35			
Fort Huachuca	92	33	65.2	0.06	Fort Mohave†	115	45	77.7	0.38			
Gila Bend a* ¹	90	60	79.5	0.20	Gila Bend b* ¹	110 ²	58	83.6	0.23			
Grand Central Mill.	.....	.....	.....	.....	Holbrook†	87	24	57.0	0.17
Hoople†	92	47	67.7	0.19	Lochiel* ¹	92	47	67.7	0.19			
Maricopa* ¹	110	63	82.5	0.14	Mount Huachuca†	94	30	66.6	T.			
Mount Huachuca* ¹	94	30	66.6	.....	Natural Bridge†	.....	.....	0.50	.....		
New River†	99	43	70.2	0.29	Navajo Springs†	.....	.....	0.00	.....		
Oracle†	91	30	66.9	.....	New River†	99	43	70.2	0.29		
Pantano* ¹	97	42	72.3	0.62	Payson* ¹	94	36	61.8	0.35			
Peoria.	104	45	75.0	0.18	Phoenix a†	106	39	75.3	0.15			
Red Rock* ⁵	105	50	83.8	0.49	Phoenix b†	106	39	75.3	0.15			
Saint Johns†	.....	.....	.....	Red Rock* ⁵	105	50	83.8	0.49	
San Carlos.	106	33	69.6	0.03	Saint Johns†	.....	.....	0.70	.....		
San Simon* ¹	106	63	78.1	0.00	San Carlos.	106	33	69.6	0.03			
Signal†	105	44	73.4	0.35	San Simon* ¹	106	63	78.1	0.00			
Teivation	.....	.....	.....	Signal†	105	44	73.4	0.35	
Texas Hill†	111	42	76.2	0.00	Teivation	.....	.....	0.00	.....		
Tucson a†	103	43	73.8	0.36	Tucson a†	103	43	73.8	0.36			
Malvern†	84	41	70.4	7.47	Malvern†	84	41	70.4	7.47			

Meteorological record of voluntary observers, &c.—Continued.

Stations.	Temperature. (Fahrenheit.)			Precip'n.
	Max.	Min.	Mean	
Arkansas—Cont'd.	o	o	o	Ins.
Newport a†	89	42	68.9	12.27
Newport b†	89	42	67.0	12.25
Oscoda†	85	47	9.03	9.03
Ozark†	90	41	67.0	12.16
Ozone†	81	38	62.5	14.00
Pine Bluff†	89	46	71.2	12.14
Prescott†	86	42	70.4	11.01
Rogers†	86	37	63.6	12.66
Russellville†	90	42	68.5	11.26
Stuttgart†	88	46	69.6	10.95
Texarkana†	91	44	71.2	6.31
Washington†	84	51	70.3	.....
Winslow†	70	43	63.1	12.83
California.				
Alcalde†	105	49	71.1	0.92
Almaden†	98	47	61.1	2.80
Alvarado†	94	42	62.4	1.90
Anaheim†	103	55	69.3	1.48
Antioch†	97	47	65.6	0.76
Aptos†	99	45	61.3	2.47
Arcata	76	36	53.8	3.75
Athlone†	105	45	67.6	2.29
Auburn†	94	45	64.4	4.55
Bakersfield a†	103	50	69.5	0.41
Bakersfield b†	107	39	67.6	2.28
Beaumont†	95	40	63.2	1.87
Belmont†	94	47	64.3	.....
Berendo†	107	52	72.3	1.82
Berkeley†	90	43	56.8	2.97
Bishop Creek†	99	43	71.4	0.25
Boca†	80	24	45.3	3.10
Borden†	105	46	67.0	1.90
Boulder Creek†	98	41	69.5	6.03
Brentwood†	100	46	65.2	0.72
Brighton†	101	41	64.9	2.05
Byron†	102	46	68.0	0.82
Caliente†	102	47	70.0	1.00
Calistoga†	96	44	65.1	0.00
Campo†				2.75
Capitolia†	94	42	61.4	0.00
Castroville†	88	50	61.2	1.54
Centreville†	101		63.7	1.96
Chico†	98	42	64.9	3.24
Cisco†	71	20	41.8	8.30
Citrus†	102	42	70.2	0.70
Claremont†	95	39	66.0	3.51
Colfax†	94	30	59.7	6.14
Colton†	100	40	64.1	1.44
Corning†	103	44	65.1	1.63
Crescent City				6.13
Crofton†	100	50	65.5	1.81
Davisville a†	97	48	67.3	2.08
Davisville b	94	43	65.2	2.34
Delano†	107	47	70.4	0.43
Delta†	103	30	64.6	5.22
Downey†	102	52	67.8	2.09
Drytown	95	36	60.8	3.75
Duarte	100	42	64.2	4.35
Dunnigan†	90	46	70.3	2.18
Dunsmuir†	97	35	59.7	3.90
Edgewood†	89	38	55.3	1.03
El Casco†	102	40	65.9	0.00
El Dorado†	95	44	63.8	4.91
Elmira†	100	43	65.4	2.82
El Verano†	95	45	66.2	2.35
Emigrant Gap†	79	29	48.9	5.00
Esparto†	100	44	66.4	1.74
Evergreen				1.98
Exeter†	103	46	69.6	1.41
Farmington†	102	40	65.9	2.59
Felton†	102	44	64.9	4.24
Fernando†	98	45	65.1	1.68
Florence†	98	50	68.4	1.34
Florin†	99	36	62.2	.....
Folsom City a†	97	48	65.9	4.15
Folsom City b				3.91
Forestville†	92	30	55.1	4.37
Fort Bidwell	89	28	52.8	1.57
Fresno†	108	48	71.4	1.30
Fruto†	98	48	66.3	4.08
Galt†	98	54	72.8	3.05
Georgetown†	88	33	57.6	7.58
Gilroy†	98	46	61.3	1.21
Girard†	95	36	61.4	1.16
Glen Ellen†	95	45	62.3	7.33
Goshen†	105	40	67.3	1.20
Grass Valley a				6.49
Haywards†	88	47	60.1	1.00
Hollister†	99	44	61.3	1.33
Hornbrook†	96	38	61.6	0.50
Huron†	109	50	73.6	0.52
Hyde Ranch				1.04
Hydesville†	77	35	52.4	2.42
Independence†	96	32	54.2	0.96
Indio†	106	58	78.8	0.14
Ione†	97	45	61.1	2.89
Iowa Hill†	92	36	60.1	6.57
Jackson†	95	33	58.2	3.85
Jolon				2.25
Julian†	90	32	56.1	3.55
Keeler†	92	45	67.6	0.50
Keene†	97	40	63.9	0.00
Kennedy Gold Mine†	92	40	62.2	4.94
King City†	102	44	59.8	1.08

Meteorological record of voluntary observers, &c.—Continued.

Stations.	Temperature. (Fahrenheit.)			Precip'n.
	Max.	Min.	Mean	
California—Cont'd.	o	o	o	Ins.
Kingsburgh a†	106	45	69.0	1.11
Knights Landing†	100	46	63.4	2.44
LaGrange c†	104	43	65.8	3.04
Lathrop†	105	48	66.6	1.31
Laurel†	98	41	60.1	1.13
Lenore†	105	44	71.5	1.75
Liverton†	98	45	62.8	1.30
Livingston†	102	43	68.9	1.75
Lodi†	99	38	63.2	2.47
Long Beach†	91	45	63.9	2.12
Los Angeles a†	101	49	67.4	2.19
Los Banos†	95	49	72.9	0.90
Los Gatos a†	100	48	64.6	2.88
Los Gatos b	100	40	61.8	3.05
Mammoth Tank†	110	58	84.6	0.00
Martinez†	90	50	63.9	1.80
Marysville a†	95	45	65.5	2.94
Menlo Park†	96	46	61.8	1.43
Merced†	106	45	67.1	2.47
Milton (near)†	100	45	62.8	3.02
Modesto a†	98	52	70.1	1.14
Mohave†	104	41	69.0	0.26
Monson†	101	48	71.5	1.19
Montague†	96	32	59.7	1.40
Monterey†	79	48	58.8	0.83
Monterey (Hotel del Monte)†	87	47	58.9	.....
Napa City a†	100	40	58.3	4.00
Napa City b†	93	41	61.1	2.73
National City†	94	45	61.6	1.45
Needles†	107	49	79.5	0.45
Nevada City†	92	36	56.7	5.80
Newark†	94	50	63.1	1.24
Newcastle†	96	38	61.6	4.23
Newhall†	101	44	64.9	2.08
Newman†	101	57	72.5	0.81
Niles†	97	46	64.9	2.34
Nordhoff†	100	34	61.6	1.39
Norwalk†	102	50	64.2	1.50
Oakland a	89	42	58.4	.....
Oakland b†	82	51	60.6	2.20
Ogilby†	119	54	84.5	.....
Oleta†	91	41	61.8	4.54
Ontario†	100	42	66.3	2.49
Orangevale†	100	37	62.6	3.84
Orland†	106	43	69.9	2.50
Orville†	99	47	65.9	3.24
Pajaro†	95	47	60.4	4.44
Palermo†	94	38	62.8	2.81
Palm Springs†	117	60	86.3	0.12
Paso Robles†	101	40	63.1	1.88
Petaluma†	94	47	61.8	2.38
Placerville a†	94	43	63.2	5.35
Placerville b†	90	33	58.2	5.87
Pleasanton†	101	45	65.0	1.30
Pomona†	102	42	60.3	2.40
Porterville†	104	48	72.7	0.65
Puente†	101	40	66.6	1.84
Rancho Cielo†	100	40	63.1	2.30
Colorado.				Colorado.
Alma†	61	13	37.6	0.87
Amherst†				5.15
Avoca				7.22
Box Elder				5.30
Brandon				6.10
Breckenridge†	70	11	37.7	3.09
Brush				2.49
Cañon City†	90	34	57.9	1.51
Carson a†	66	27	40.4	0.80
Castle Rock†	85	27	52.8	1.42
Chivington†				9.73
Climax†	53	17	29.0	2.50
Colorado Springs†	79	30	51.5	2.01
Como (near)†	65	18	39.2	0.95
Cope†	88	23	52.9	6.10
Crook†	60	30	53.0	5.73
Cumbres†	62	12	37.3	0.40
Del Norte†	81	19	49.9	0.29
Dillon†	84	29	51.0	0.27
Dillon†				3.74
Downing†	86	20	52.5	2.12
Dumont				2.21
East Dale				0.22
Fort Collins (near)				4.18
Fruitful†	92	30	57.8	1.11
Garnett				0.01
Gaynor				5.22
Georgetown†	69	24	45.4	2.90
Glen Eyrie†	78	29	50.3	.....
Gold Hill†				3.90
Grand Junction†	88	35	60.0	0.65
Greeley†				2.30
Greenhorn†	89	24	51.8	2.90
Grover†	79	30	48.9	2.27
Hugo†	92	28	53.6	5.35
Husted†	84	29	51.0	1.74
Idaho Springs†	73	26	45.3	1.70
Jefferson†	62	20	38.6	4.06
Julesburg†	89	30	51.0	3.22
Jura†	80	24	50.8	0.76
Lamar†	90	30	58.7	3.27
La Porte				4.30
Las Animas†	88	30	54.1	1.13
Lavender				1.60
Lay†	79	33	48.5	1.37
Le Roy†	82	30	49.2	2.53
Leslie				2.74
Longmont†	84	31	53.0	4.20
Loveland				3.93
Manhattan				2.33
Middle Box Elder				4.05
Minneapolis†				4.68
Monte Vista a	77	22	49.8	1.37
Moraine†	69	24	42.7	3.21
Pagoda (near)†	80	27	48.4	2.49
Paonia†				0.56
Parachute†	85	30	54.8	2.00
Red Cliff				1.50
Rico				2.10
Rocky Ford†	89	28	53.5	4.31
Saint Cloud				2.00
San Acacia				0.23
San Barroa†	93	40	61.2	2.55
San Geronimo†	95	38	53.0	3.74
San Luis†	93	30	55.9	3.72
Spadra†	102	45	64.9	0.00
Steelers	93	39	55.5	2.49

Meteorological record of voluntary observers, &c.—Continued.

Stations.	Temperature. (Fahrenheit.)			Precip'n.
	Max.	Min.	Mean	
California—Cont'd.	o	o	o	Ins.
Stockton a	100	41		

Meteorological record of voluntary observers, &c.—Continued.

Stations.	Temperature. (Fahrenheit.)			Precip'n.	Stations.	Temperature. (Fahrenheit.)			Precip'n.
	Max.	Min.	Mean			Max.	Min.	Mean	
Georgia—Cont'd.	o	o	o	Ins.	Indiana—Cont'd.	o	o	o	Ins.
Lithia Springs †...	92	37	67.4	1.86	Farmland *1...	84	44	59.9	10.25
Louisville †...	95	45	72.2	3.44	Franklin *1...	85	45	61.3	6.81
Lumpkin †...	93 ^d	48 ^d	72.9 ^d	3.01	Hammont *1...	76	30	52.0	8.59
McArthur †...	92	46	71.7	3.81	Hawpatch †...	80	41	57.8	13.11
Macon †...	92	42	70.6	2.13	Huntingburgh †...	82	45	65.3	11.75
Marietta †...	88	42	66.8	1.79	Huntington †...	85	45	57.7	11.48
Marshallville †...	89	50	72.7	2.30	Irvington †...	88	47	65.1	4.29
Milledgeville †...	90	45	70.6	1.94	Jeffersonville †...	84	36	58.8	8.79
Miller †...	94	42	72.2	2.96	La Fayette †...	84	37	59.3	11.05
Morgan †...	91	.....	2.27	Logansport †...	85	39	61.6	10.21	
Newnan †...	92	44	70.2	1.35	Marengo *1...	88	50	62.8	7.11
Point Peter *1...	90	42	70.8	1.00	Marion †...	86	32	60.4	10.71
Poulan †...	94	41	73.3	1.20	Mauzy †...	86	35	56.9	6.82
Quitman †...	94	48	75.6	0.75	Michigan City †...	82	39	57.3	10.51
Quitzman b †...	96	42	72.4	0.07	Mount Vernon †...	82	36	59.9	6.16
Resaca †...	.....	2.45	.....	Mount Vernon b †...	85	34	64.3	6.16	
Rome †...	91	43	67.8	2.77	Muncie *†...	88	45	60.4	4.88
Statesborough †...	90	54	76.6	3.13	New Albany *†...	85	48	65.1	11.70
Thomasville †...	94	46	74.7	2.73	Point Isabel †...	80	35	56.6	5.50
Toccoa †...	92	44	68.0	2.78	Princeton *†...	87	46	64.9	4.90
Union Point †...	94	45	71.2	0.54	Rockville †...	84	36	59.9	8.05
Washington †...	94	47	73.0	1.46	Rushville †...	81	36	58.6	6.10
Way Cross †...	92	50	74.9	0.90	Seymour †...	87	41	62.8	6.14
Waynesborough †...	96	47	73.4	4.26	Shelbyville *†...	84	43	60.2	8.08
West Point †...	90	52	73.9	2.87	Terre Haute †...	73	39	53.2	5.70
Idaho.	.....	.....	.....	Valparaiso †...	80	39	57.0	5.64	
American Falls †...	53	28	50.8	2.55	Vevay †...	89	42	64.3	6.04
Boise Barracks ...	91	32	55.6	3.51	Wabash †...	81	36	58.6	10.51
Bonanza City †...	76	18	41.8	0.74	Worthington †...	85	42	61.2	5.34
Elk City †...	84	22	47.6	4.03	Indian Territory.	.....	.....	.....	.....
Fort Sherman ...	85	26	53.4	2.15	Eufaula †...	.....	.....	14.42	.....
Garden Valley †...	84	26	56.4	1.45	Fort Supply †...	93	38	63.8	4.48
Henry's Lake †...	78	5	41.0	2.26	Headton †...	88	50	69.0	8.40
Kootenai †...	90	25	51.5	2.85	Lehigh †...	92	41	68.0	9.99
Martin †...	74	24	45.8	4.27	Pauls Valley †...	95	41	70.2	6.99
Moscow *†...	80	33	51.1	6.16	Purcell †...	95	41	68.8	8.95
Ruthburg *†...	95	30	49.6	2.27	Supalpa †...	90	40	72.5	12.50
Illinois.	.....	.....	.....	Tulsa †...	90	42	67.8	12.10	
Alton †...	.....	7.87	.....	Iowa.	.....	.....	.....	.....
Aurora a †...	79	33	54.2	8.29	Alta †...	74 ^b	31 ^b	48.8	10.39
Aurora b †...	78	36	55.5	8.03	Amanita †...	76	34	55.1	7.38
Beardstown †...	.....	6.59	.....	Amesb †...	77	30	52.0	8.66	
Beason *†...	83	35	58.7	.....	Amesc †...	.....	8.11	.....	.....
Bloomington †...	88	32	58.8	8.27	Atlantic †...	79	35	53.3	8.08
Carlinville †...	86	37	60.2	9.90	Bancroft †...	72	32	50.8	6.47
Centralia *1...	84	48	.....	Belle Plaine †...	81	34	54.6	2.60	
Charleston †...	85	37	60.7	10.90	Blakeville *1...	81	34	55.1	8.97
Chester †...	.....	8.77	.....	Blockton †...	79	35	56.6	11.21	
Cockrell *†...	73	38	54.1	7.78	Carroll †...	.....	6.99	.....	.....
Decatur *†...	78	38	58.4	5.24	Cedar Falls †...	32	52.5	51.5	11.00
Ellsworth †...	77	34	55.0	8.93	Cedar Rapids †...	76	33	55.3	10.12
Fairmount †...	82	35	56.5	8.52	Centerville †...	84	39	54.5	10.57
Fort Sheridan ...	75	38	52.2	6.51	Charles City †...	70	34	51.0	5.36
Golconda *1...	85	48	63.8	7.24	Clarinda †...	79	36	56.3	11.55
Greenville *1...	87	38	60.6	7.79	Clinton †...	78	34	55.6	8.41
Griggsville †...	82	34	59.9	8.93	College Springs *1...	78	29	47.5	8.64
Havana †...	80	38	60.1	7.69	Corning b †...	76	35	55.0	1.62
Hennepin †...	.....	12.57	6.81	Cresco †...	73	32	52.4	5.99	
Jordans Grove †...	85	41	63.8	5.91	Delaware *...	35	33	53.6	10.50
Kankakee †...	79	39	57.8	10.09	Fairfield †...	.....	12.01	.....	.....
La Grange †...	82	37	55.8	8.00	Fayette †...	76	30	52.3	6.66
Lanark *4...	74	36	53.2	9.29	Fort Madison *†...	79	42	59.9	8.90
Louisville *3...	86	43	61.6	7.00	Glenwood †...	88	39	57.1	8.80
Manchester *3...	78	42	58.4	.....	Grand Meadow *1...	77	34	52.5	8.33
Martinsville *†...	80	40	61.3	6.83	Greenfield *1...	79	34	52.8	7.93
Mascoutah *...	86	40	7.70	.....	Sedgwick *1...	73	33	54.9	10.47
Mattoon †...	85	39	53.0*	8.15	Grundy Centre *1...	72	36	53.8	9.30
McLeansborough *1...	90	42	64.2	6.92	Hampton †...	72	32	50.6	7.62
Mount Carmel †...	.....	4.94	.....	Hopeville †...	75	36	54.8	10.84	
New Haven †...	.....	5.87	.....	Havelock †...	74	32	50.1	15.70	
Olney b *1...	85	47	64.2	5.11	Hawk Eye †...	.....	5.06	.....	.....
Oswego *1...	82	36	54.4	8.05	Hopeville †...	75	36	52.3	10.47
Ottawa †...	80	31	57.7	13.25	Independence †...	76	32	53.9	10.47
Palestine †...	83	41	60.8	8.60	Iowa City †...	77	34	55.7	9.23
Pana *1...	86	45	61.7	8.37	Hamlin Falls †...	71	33	52.3	6.91
Peoria d *1...	85	47	64.2	6.84	Keosauqua †...	80	37	58.0	7.36
Peoria b *1...	81	41	60.3	7.70	Larrabee †...	78	30	51.2	9.65
Philo †...	83	35	58.8	7.43	Le Claire †...	.....	9.65	.....	.....
Quincy †...	.....	5.34	.....	Logan †...	80	35	55.8	10.32	
Rantoul *1...	80	42	58.0	8.17	McCausland *1...	75	39	54.0	10.02
Riley †...	75	34	53.2	11.05	Maquoketa *1...	78 ^m	39	54.0	5.42
Rockford †...	75	36	54.4	9.18	Marshalltown †...	75	36	53.2	9.73
Rushville †...	84	34	60.2	7.58	Maxon *1...	82	30	53.9	11.35
Saint John *3...	86	50	65.8	7.76	Mechanicsville ...	75	32	53.9	8.97
Sycamore *1...	75	38	54.5	11.77	Monticello *1...	76	32	54.5	9.58
Walnut †...	80	35	57.6	8.49	Mount Pleasanta *2...	75	35	55.2	11.34
Warsaw †...	.....	4.66	.....	Murray †...	75	36	55.2	11.34	
Watseka ^a...	.....	56.9	9.47	Osage *†...	84	51	53.1	4.87	
White Hall *4...	80	39	59.0	9.20	Palatka †...	75	37	55.7	10.32
Winnebago *†...	72	32	54.3	8.33	Panama †...	75	34	55.2	7.95
Indiana.	.....	.....	.....	Richland *3...	70	32	52.9	6.84	
Angola ^a ...	88	40	59.9	8.91	Seymour †...	75	36	52.2	10.24
Ashboro *4...	78	41	57.7	6.66	Spirit Lake †...	73	30	52.2	9.31
Butterville *3...	83	45	62.3	5.89	Storm Lake †...	75	32	54.2	7.20
Cambridge City †...	85	38	60.8	5.32	Tipton †...	78	33	55.3	9.18
Columbia City *3...	81	38	58.3	11.12	Vinton *1...	73	39	54.0	7.54
Columbus *1...	84	45	62.0	6.52	Franklin *†...	84	42	65.2	6.38
Connersville †...	85	40	59.7	5.84	Frankfort †...	.....	.....	.....	.....
De Gonia Springs *6...	85	46	65.1	5.33	Franklin *†...	84	31	55.6	5.35
Delphi...	78	36	56.5	10.16	Franklin *†...	84	31	55.6	5.35
Evansville †...	.....	4.34	.....	Franklin *†...	84	31	55.6	5.35	

Meteorological record of voluntary observers, &c.—Continued.

Stations.	Temperature. (Fahrenheit.)			Precip'n.	Stations.	Temperature. (Fahrenheit.)			Precip'n.	Stations.	Temperature. (Fahrenheit.)			Precip'n.
	Max.	Min.	Mean			Max.	Min.	Mean			Max.	Min.		
Iowa—Cont'd.	o	o	o	Ins.	Farmland *1...	84	44	59.9	10.25	Washington †...	82	40	59.2	9.12
Louisiana.	.....	.....	.....	.....	Franklin City *1...	85	34	52.0	6.12	Webster City *1...	72	34	50.7	6.12
Kentucky—Con.	o	o	o	Ins.	West Bend †...	75	33	50.7	8.22	Harrodsburgh †...	80	37	58.7	5.00
Grand Rivers ...	85	41	66.0	5.62	Williams #1...	71	33	51.0	6.10	La Grange †...	80	42	64.8	3.91
Greensburg *†...	89	46	66.2	4.92	Winterseat †...	76	37	54.6	10.70	Middlesborough †...	88	42	64.8	5.57
Paducah †...	86	37	60.5	7.06	Kansas	86	37	60.5	7.06	Mount Sterling †...	88	41	64.9	5.96
Paducah †...	86	37	60.5	7.06	Abilene †...	86	37	60.2	6.04	Paducah †...	86	37	60.2	6.04
Paducah †...	86	37	60.5	7.06	Alton †...	87	37	54.0	5.88	Paducah †...	86	37	60.2	6.04
Paducah †...	86	37	60.5	7.06	Alton †...	87	37	54.0	5.88	Paducah †...	86	37	60.2	6.04
Paducah †...	86	37	60.5	7.06	Antelope †...	89	37	60.5	7.06	Paducah †				

Meteorological record of voluntary observers, &c.—Continued.

Stations.	Temperature. (Fahrenheit.)			Precip'n.	Stations.	Temperature. (Fahrenheit.)			Precip'n.
	Max.	Min.	Mean			Max.	Min.	Mean	
Massachusetts—Con.	o	o	o	Ins.	Michigan—Cont'd.	o	o	o	Ins.
Cambridge b	80	37	56.1	6.06	Hayes	82	35	52.0	2.45
Chestnut Hill	83	31	55.8	6.08	Highland Station	83	32	53.4	5.43
Chicopee			7.35		Howell	84	30	53.8	6.17
Clinton			5.58		Ivan	79	24	50.7	3.76
Concord†	82	26	54.3	5.12	Jeddo	80	34	52.2	4.00
Cotuit	71	31	52.2	4.86	Kalamazoo	78	40	57.2	7.04
Dudley	82	34	54.3	4.74	Lansing	81	32	54.5	5.31
Egg Rock, Nahant	70	37	52.8	3.00	Lathrop	77	32	50.7	4.48
Fall River a†	76	36	55.0	5.87	McMillan	67	40	52.5	6.00
Fiske Dale			5.57		Madison	83	33	56.2	8.76
Fitchburg a*†	82	38	58.3	6.43	Marshall	85	32	55.1	8.44
Fitchburg b	83	28	53.7	5.95	May	81	33	53.2	5.01
Florida b	80	25	48.9	6.48	Mio	76	32	51.5	3.92
Framingham	83	27	54.3	5.57	Montague	76	32	51.1	5.62
Gilbertville	84	26	54.0	6.81	Mottville	83	32	57.0	8.37
Groton	81	29	56.0	6.19	Noble	76	40	55.3	7.87
Heath *†	86	30	54.0	4.00	North Marshall	80	32	57.6	7.42
Hyannis *†	78	40	57.7	5.36	Ovid	82	32	53.7	6.04
Kendall Green	84	36	57.0	5.51	Parkville			9.94	
Lake Cochituate	85	24	55.5	5.46	Rawsonville	84	37	57.3	7.91
Lawrence	86	29	57.4	5.83	Rockland	80	27	46.0	4.28
Leicester	81	32	51.6	5.33	Saint Ignace	70	33	47.0	3.51
Leominster			6.15		Sand Beach	75	33	48.4	2.61
Long Plain	77	42	56.0	5.24	Standish			2.87	
Lowell a	78	31	54.7	5.86	Stanton	79	31	52.4	5.51
Lowell b	79	28	55.4	4.00	Stockbridge			7.10	
Lowell c	82	28	55.4	4.00	Thornville	85	35	56.2	6.43
Ludlow a	80	27	52.0	6.73	Vandalia	78	36	55.8	10.01
Lynn	77	39	56.6	5.53	Vienna			4.59	
Mansfield†	89	42	55.7	6.32	Washington	81	33	55.2	6.36
Middleborough			4.76		Weldon Creek	79	23	51.3	4.94
Milton *†	81	31	53.7	5.02	White Pigeon *†	77	32	53.8	8.16
Monroe	79	27	50.7	8.37	Ypsilanti	84	39	58.0	8.92
Monson	85	32	56.1	5.87	Minnesota				
Mount Nonotuck			4.57		Alexandria†			4.76	
Mystic Lake			5.85		Alma City†	71	30	50.3	5.25
Mystic Station			5.64		Ash Creek†	75	29	52.3	5.25
New Bedford a†	76	34	52.7	5.1†	Bingham Lake†	74	30	49.3	5.33
New Bedford b	78	32	53.6	5.15	Bird Island	76	28	50.0	8.74
Newburyport a			5.71		Caledonia†	75	31	50.8	5.93
Newburyport b			4.64		Camden†	76	29	50.3	7.77
Northampton	83	36	58.4	7.17	Clear Lake *†	69	31	49.4	3.51
North Billerica	83	29	56.6	5.16	Crookston†	77	27	48.0	4.91
Plymouth *†	82	42	57.2	3.91	Eagle Bend†	72	22	46.6	4.91
Princeton	80	32	52.8	5.08	Easton	73	31	50.9	5.04
Provincetown	74	34	53.1	3.64	Fairfield†	78	29	52.2	7.40
Randolph			4.85		Farmington	73	30	51.0	5.46
Roberts Dam			5.35		Fergus Falls *†	72	30	50.5	5.93
Roxbury 1	78	36	55.6	5.89	Fort Ripley†			5.29	
Royalston *†	78	38	55.2	6.12	Grand Meadow	76	32	50.4	5.25
Salem b			6.11		Granite Falls	75	29	48.8	8.94
Savoy	88	26	55.1	5.60	Jackson	73	29	49.4	9.71
Somerset 1	84	41	58.2	4.95	Kinbrae†	76	28	48.6	9.71
Springfield Arm'y	83	37	57.3	6.96	L Winnibigoshish†	71	31	46.5	4.99
Taunton a†	85	32	55.4	5.48	Leech Lake *†	70*	30	46.3	6.10
Taunton b	80	32	55.6	5.55	Maple Plain *†	74	32	50.1	5.30
Taunton c	81	27	54.4	5.93	Minneapolis†	74	30	51.0	7.51
Taunton d	84	34	55.1	5.21	Montevideo†	78	28	49.6	9.91
Turners Falls	78	30	54.8	5.68	Morris	77	30	48.9	9.91
Wakefield	79	29	55.2	5.83	Northfield†	71	32	49.6	9.21
Walatham			5.81		Ortonville†	71	32	49.6	9.21
Wellesley	78	33	52.4	5.68	Pine River *†	71	28	45.7	5.94
Westborough†	84	28	55.9	5.59	Pokegama Falls†	71	28	44.6	5.12
Williamstown†	78	31	53.8	5.43	Princeton†	76	29	51.2	5.99
Winchester			5.32		Redwood Falls†			7.06	
Worcester	83	34	55.8	6.34	Rolling Green†	71	31	49.2	6.81
Michigan.					Saint Charles *†	73	28	50.5	8.94
Adrian			56.2	9.18	Saint Oloff *†	76	28	48.5	6.37
Albion	80	34	56.9	7.91	Sheldon			5.37	
Allegan	80	33	54.7	7.12	Mississippi				
Alma	79	31	52.4	5.39	Aberdeen†	92	40	72.6	2.57
Arbela	85	40	53.9	5.65	Agricult'ral Coll'	90	47	61.6	2.57
Ball Mountain	80	29	53.5	6.17	Batesville†	88	45	70.2	4.33
Bear Lake	75	28	51.6	3.20	Booneville†			4.40	
Bellaire	78	39	54.7	2.30	Brookhaven†	93	40	72.4	2.67
Benton Harbor	85	36	55.4	8.15	Canton†	86	48	71.7	1.48
Benzonia	75	32	51.5	4.02	Columbus†	98	40	72.9	3.45
Berlin *†	85	32	54.2	6.02	Detroit	92	40	72.6	4.56
Berrien Springs a†	79	40	58.0	9.14	Enterprise†	90	45	71.0	5.45
Berrien Springs b			8.91		Fayette†	90	45	72.8	5.45
Birch Run	86	32	55.0	4.28	Holy Springs†	88	44	60.6	4.46
Birmingham†	84	35	55.9	5.04	Jackson†	92	46	69.4	3.93
Bronson	81	33	55.4	8.80	Kosciusko†	90	46	73.6	1.90
Brown City	85	33	53.6	4.92	Lake†	90	46	72.0	2.06
Caldwell	75	25	50.4	4.24	Logtown†	87	49	72.8	1.72
Calumet	72	29	45.3	3.19	Louisville†	92	49	70.7	1.68
Charlevoix	74	32	49.4	3.82	Macon†	94	46	73.5	2.20
Clinton	85	31	56.0	9.43	Moss Point†	90	50	73.4	1.10
Concord	83	31	54.5	7.40	Natchez†	91	48	73.6	3.21
Crystal Falls	75	25	46.3	3.36	Okolona†	94	40	70.4	7.88
Evart *	79	28	49.9	4.19	Pontotoc†	88	48	68.3	6.25
Fairview	78	32	54.4	7.13	Port Gibson†	93	41	72.7	2.06
Fitchburgh	84	28	54.6	7.37	Ship Island†	89	54	76.2	1.08
Flint	82	32	53.3	4.39	Water Valley *†	95	44	72.9	2.23
Fremont	78	31	52.8	4.67	Washington†	92	46	73.0	2.51
Gaylord	77	28	48.1	3.44	Waynesborough a†	95	50	71.2	2.06
Gladwin	80	30	55.9	2.72	Waynesborough b†	90	45	70.4	2.41
Grape	83	33	56.9	9.07	Waynesborough a†	92	44	70.3	2.35
Grayling	80	26	50.8	3.65	Waynesborough b†				
Hanover	78	32	55.1	9.75	Yaden†	95	44	72.9	2.23
Harbor Springs	79	29	50.1	3.25	Zion†	93	44	53.6	7.02
Harrisville	81	30	47.7	3.50	Water Valley *†	95	50	71.2	3.80
Hart	72	27	50.5	7.25	Washington†	92	45	70.4	5.02
Hastings	81	35	54.4	7.33	Waynesborough a†	90	45	70.3	3.36

Meteorological record of voluntary observers, &c.—Continued.

Stations.	Temperature. (Fahrenheit.)			Precip'n.	Stations.	Temperature. (Fahrenheit.)			Precip'n.	Stations.	Temperature. (Fahrenheit.)			Precip'n.
	Max.	Min.	Mean			Max.	Min.	Mean			Max.	Min.	Mean	
Michigan—Cont'd.	o	o	o	Ins.	Hayes	82	35	52.0	2.45	Mississippi—Cont'd.	o	o	o	Ins.
Highland Station	83	32	53.4	5.61	Howell	84	30	53.8	6.17	Yazoo City†	82	24	52.3	2.34
Hillsdale *†	80	40	55.3	8.61	Ivan	79	24	53.8	7.76	Adrian	83	28	55.9	9.53
Johnston	84	32	54.1	4.92	Jeddo	80	34	52.2	4.00	Appleton City†	88	36	59.0	9.73
Boonville†	82	37	53.2	7.05	Kalamazoo	78	40	57.0	10.30	Boothbay	83	24	54.6	4.98
Brunswick†	83	37	54.9	7.55	Montague	76	32	51.1	5.62	Carrollton†	80	38	56.0	4.70
Darksville†	82	36	54.5	7.51	Motague	76	32	51.1	5.62	Centreville	81	31	54.9	4.98
Darkville†	82	36	54.5	7.51	Montgomery	78	38	56.8	7.00	Centre Hill†	84	25	50.0	7.08
Darkville†	82	36	54.5	7.51	Montgomery	78	38	56.8	7.00	Chillicothe a	83	24	54.1	6.20
Darkville†	82	36	54.5	7.51	Montgomery	78	38	56.8	7.00	Clinton *†	81	30	54.4	4.11
Darkville†	82	36	54.5	7.51	Montgomery	78	38	56.8	7.00	Concord *†	78	27	53.4	6.24
Darkville†	82	36	54.5	7.51	Montgomery	78	38	56.8	7.00	Concord a	78	27	53.8	6.57

Meteorological record of voluntary observers, &c.—Continued.

Stations.	Temperature. (Fahrenheit.)			Precip'n.	Stations.	Temperature. (Fahrenheit.)			Precip'n.
	Max.	Min.	Mean			Max.	Min.	Mean	
N. Hampshire—Con.	o	o	o	Ins.	New York—Cont'd.	o	o	o	Ins.
Lakeport	.....	.....	6.26	Cherry Creek	.....	6.66	79	23	46.4
Littleton	81	32	3.79	Constableville [†]	82	32	49.6	23 ^d	0.35
Manchester ¹	79	25	55.3	Cooperstown ¹	82	34	52.4	45.5	1.61
Mine Falls	.....	.....	5.33	Corning	.....	5.97	24	45.5	1.87
Nashua	83	27	55.6	Cortland ¹	81	37	53.6	45.4	1.77
Newton	80	24	54.4	De Kalb Junction	.....	5.97	27	40.0	3.88
North Conway	78	22	51.4	Dempster	.....	5.00	29	48.5	4.00
Pennichuck Station	.....	.....	5.55	Deposit	.....	5.00	29	46.8	0.62
Peterborough	81	21	51.6	Dunkirk b.	.....	5.14	23	46.8	1.80
Plymouth ¹	83	26	51.0	Eden Centre	89	34	54.8	49.2	1.47
Stratford	86	21	52.0	Elmira [†]	82	40	57.3	24	2.26
Walpole	79	30	53.4	Factoryville [†]	89	29	55.5	45.4	2.85
West Milan	78	18	50.0	Fleming ¹	84	38	54.0	29 ^c	2.42
Wiers Bridge	.....	.....	6.04	Grand Forks [†]	81	25	45.7	31	0.61
Wolfborough	.....	.....	4.87	Grand Rapids [†]	81	25	45.7	3.03	0.65
New Jersey	.....	.....	.....	Hope [†]	78	23	47.5	1.80	0.90
Allaire	86	.....	59.2	Hope [†]	78	23	47.5	3.01	1.53
Ashbury Park	83	39	59.6	Galway	.....	6.76	26	47.1	1.76
Bayonne ^b	85	37	59.5	Geneva [†]	87	35	54.6	4.32	1.16
Bellefonte	.....	.....	5.50	Glen Falls	85	39	55.9	2.07	1.84
Belvidere	84	35	58.6	Gloversville ¹	83	31	50.5	4.35	0.89
Beverly [†]	86	38	60.8	Hammonton ¹	85	40	57.2	4.77	1.13
Bivalve	84 ^a	37 ^c	6.04 ^c	Hess Road Statn [†]	89	32	53.5	2.77	0.45
Blairstown	84	31	58.8	Honeymead Brook ¹	83	35	56.2	6.01	0.76
Bridgeton ^a	84	44	53.3	Humphrey [†]	89	26	53.2	7.45	1.98
Bridgeton ^b	85	44	63.3	Ithaca [†]	85	33	55.4	4.46	1.90
Caniden	90	44	62.8	Jamestown [†]	86	37	56.4	2.21	2.05
Cape May C. H. [†]	84	43	61.0	Kings Station	.....	6.21	25	50.0	5.36
Deckertown	85	37	57.7	Lebanon Springs	80	28	53.7	4.42	1.47
Dover	84	30	57.8	Le Roy	86	30	55.7	4.91	1.11
Egg Harbor City ¹	86	39	60.0	Liberty	.....	9.42	23	47.6	4.72
Elizabeth [†]	83	40	59.1	Little Valley	.....	9.42	24	47.6	1.93
Franklinville	84	36	60.7	Lockport	91	35	53.9	4.31	1.08
Freehold	82	38	59.9	Locust Grove	.....	9.42	25	47.6	3.13
Gillette	83	38	59.1	Lowville ²	.....	9.42	24	47.5	1.90
Hanover	84	33	59.0	Lyndonville	.....	9.42	25	47.4	2.90
Highland Park [†]	82	30	60.0	McLean [†]	9.42	25	47.3	4.87
Imlayshtown	87	43	61.9	Madison Barracks	90	30	51.4	4.81	1.23
Junction	.....	.....	4.56	Malone ¹	77	29	52.2	3.26	2.08
Lambertville	84	40	60.5	Marshland [†]	76	31	50.5	4.51	1.85
Locktown	85	38	59.1	Middletown	84	37	59.0	4.99	1.82
Moorestown ¹	84	37	60.3	Minnewaska [†]	78	35	52.0	6.01	2.23
Mount Holly	84	39	61.0	Mount Morris	88	31	54.2	4.90	1.98
Newark a	83	39	58.9	Newark Valley	.....	6.66	27	47.3	1.90
Newark b	75	42	60.3	New Lisbon [†]	86	32	51.1	4.29	0.84
New Brunswick	89	37	61.8	N'th Hammond [†]	92	36	53.4	5.27	0.75
New Brunswick b	76	36	58.8	Number Four [†]	82	28	49.7	5.32	1.32
Newton [†]	85	34	58.2	Oxford	82	32	52.6	9.77	1.22
Ocean City ¹	85	47	62.8	Palermo [†]	81	31	52.1	4.62	2.03
Oceanic	83	41	61.6	Perry City ¹	85	30	53.3	6.08	1.66
Paterno	89	38	61.6	Plattsburgh B's	75	31	51.8	4.07	0.98
Rancocas [†]	81	46	55.5	Port Jervis	85	35	58.9	6.21	0.99
Readington ^{*6}	78	44	60.9	Potsdam ¹	84	36	52.7	5.01	1.57
South Orange [†]	83	37	58.3	Poughkeepsie	84	34	55.5	4.74	1.24
Tenafly	88	33	58.8	Quaker Street	78	31	53.0	7.00	2.04
Trenton ^{*1}	84	48	64.0	Romulus	86	34	55.4	5.04	1.93
Vineland	85	40	61.6	Schodack Depot	.....	5.65	39	58.3	0.88
Whiting	86	35	60.8	South Canisteo [†]	79	43	56.1	3.65	1.03
Woodbine	.....	.....	5.50	South Kortright [†]	79	27	52.5	6.35	1.22
New Mexico	.....	.....	.....	Turin	79	29	50.1	5.80	1.22
Albert [†]	1.35	Utica	85	34	53.8	7.00	1.80
Albuquerque	83	39	63.6	Wappingers Falls	.....	6.15	25	47.3	4.03
Bloomfield [†]	85	25	57.6	Watkins	85	34	57.3	3.16	0.99
Coolidge [†]	90	18	47.0	West Chazy	.....	6.15	25	47.2	1.57
Deming [*]	94	50	76.1	West Point	85	25	56.2	4.84	1.24
Dulce ^f	83	18	49.5	White Plains [†]	74 ^b	44 ^d	57.4	4.42	1.60
East Las Vegas [†]	87	19	56.5	Willets Point	78	40	58.3	5.22	1.68
Embudo	91	33	61.8	Asheville [†]	85	38	64.8	2.76	1.68
Estalina Springs [†]	85 ^c	23 ^c	55.4 ^c	Bakersville [†]	88	32	59.6	3.74	1.68
Folsom [†]	84	23	53.0	Bryson City [†]	88	32	56.7	4.26	1.68
Fort Bayard	90	33	59.8	Chapel Hill [†]	95	42	69.2	3.39	1.68
Fort Wingate	82	24	54.2	Columbus	84	40	62.2	2.25	1.68
Gallins Spring [†]	93	30	63.5	Concord	91	42	68.4	5.00	1.68
Halls Peak [†]	83	15	50.0	Currituck Inlet [†]	3.74	27	50.0	1.68
Hillsborough [†]	92	35	64.4	Douglas	97	34	66.2	1.80	1.68
La Luz [†]	85	46	66.4	Fayetteville [†]	4.79	27	50.0	1.68
Lordsburgh [†]	93	60	76.3	Goldsbrough [†]	91	44	69.5	3.51	1.68
Los Lunas [†]	91	28	58.8	Greensborough [†]	87	46	69.8	3.14	1.68
Monero [†]	81	21	49.0	Horse Cove [†]	86	38	62.0	4.00	1.68
Olio [†]	82	29	55.4	Lenoir [†]	85	44	64.6	4.40	1.68
Pojoaque	.....	.....	0.63	Lillinong [†]	3.95	27	50.0	1.68
Red Cahon [†]	88	29	60.4	Linville [†]	80	33	61.5	4.82	1.68
Socorro [†]	96	34	66.6	Littleton [†]	80 ^b	34	64.2 ^b	3.21	1.68
Springer [†]	87	25	58.2	Louisburgh [†]	87	42	68.0	3.02	1.68
Taos [†]	87	23	59.5	Lumberton [†]	93	42	71.0	2.02	1.68
New York	.....	.....	.....	Marion	90	36	64.1	5.00	1.68
Adams Centre	.....	.....	5.32	Morganston [†]	88	50	67.4	4.22	1.68
Addison ¹	87	33	54.9	Mount Airy [†]	90	36	63.4	3.50	1.68
Akron	.....	.....	5.20	Mount Holly [†]	90	36	67.2	3.92	1.68
Alfred Centre	85	30	52.4	Murphy [†]	90	41	67.2	3.92	1.68
Arcade [†]	84	29	52.0	New Berne [†]	88	42	64.9	3.49	1.68
Attica	.....	.....	5.30	Northampton [†]	90	41	67.4	4.22	1.68
Au Sable Forks	.....	.....	4.11	Mount Pleasant [†]	90	41	67.2	3.92	1.68
Avon	.....	.....	4.05	Mount Pleasant [†]	90	41	67.2	3.92	1.68
Baldwinsville ¹	89	37	54.9	Saxon [†]	93	34	65.8	3.42	1.68
Bedford	.....	.....	5.15	Smithfield	92	44	68.5	3.85	1.68
Bethlehem Centre	.....	.....	5.48	Soapstone M'tt	91	40	65.9	4.24	1.68
Binghamton [†]	85	30	54.3	Southern Pines [†]	95	41	69.1	5.27	1.68
Bloods Depot	.....	.....	5.47	Tarborough	94	42	69.4	4.97	1.68
Bolivar	.....	.....	11.02	Wadewill [†]	90	41	67.2	4.02	1.68
Brockport	.....	.....	53.3	Weldon [†]	92	41	68.4	3.57	1.68
Brookfield ¹	84	32	52.1	Willeyton	92	40	66.5	3.70	1.68
Canaseraga	85	30	53.4	North Dakota	.....	.....	.....	.....	1.68
Canton [†]	89	32	53.1	Ashley [†]	79	20	45.1	2.14	1.68
Chenango Forks	.....	.....	5.75	Bathgate [†]	76	27	46.2	0.85	1.68

Meteorological record of voluntary observers, &c.—Continued.

Stations.	Temperature. (Fahrenheit.)			Precip'n.	Stations.	Temperature. (Fahrenheit.)			Precip'n.
	Max.	Min.	Mean			Max.	Min.	Mean	
North Dakota—Cont'd.	o	o	o	Ins.	North Dakota—Cont'd.	o	o	o	Ins.
Bottineau [†]	79	23	46.4	23 ^d	Carrington [†]	75 ^c	45.5	1.61	23 ^d
Church's Ferry [†]	70	24	45.5	1.87	Dickinson [†]	70	26	45.4	1.77
Ellendale [†]	83	31	49.0	2.07	Fargo [†]	70 ^c	27	40.0	3.88
Forman [†]	84	29	48.5	4.00	Fort Stevenson [†]	82	23	46.8	0.62
Fort Yates	78	28	49.2	1.47	Gallatin [†]	75	24	45.4	2.26
Gallatin [†]	7								

Meteorological record of voluntary observers, &c.—Continued.

Stations.	Temperature. (Fahrenheit.)			Precip'n.	Stations.	Temperature. (Fahrenheit.)			Precip'n.
	Max.	Min.	Mean			Max.	Min.	Mean	
Pennsylvania—Con.	o	o	o	Ins.	South Dakota—Con.	o	o	o	Ins.
Lebanon ¹	85	35	59.9	5.14	Gary [†]	75	27	47.2	8.48
Le Roy [†]	84	32	55.0	5.14	Gettysburgh	.....	.....	4.16	.....
Lewisburgh	S3	30	57.3	4.96	Grand View	.....	.....	3.11 ¹	.....
Ligonier ¹	89	33	53.8	2.06	Hitchcock	.....	.....	5.25	.....
Lock Haven [†]	90	35	59.5	4.91	Hotch City [†]	89	28	49.8	3.71
Lock No. 4 [†]	Kimball [†]	85	30	50.4	4.22	
Mahoning [†]	6.67	Macy [†]	70	15	43.4	7.34	
McConnellsburgh ¹	84	34	60.6	5.97	Melletto [†]	78	30	53.1	2.88
Meadville ^o	.....	29	58.0	5.75	Midland [†]	92	28	53.1	2.88
New Castle [†]	89	30	61.1	6.31	Millbank [†]	79	29	49.6	8.09
Oil City [†]	7.56	Mitchell [†]	82	30	49.0	6.71	
Ottisville	.....	.....	5.44	Oelrichs [†]	85	19	48.1	2.67	
Parkers Landing [†]	9.06	Onida [†]	85	29	45.5	5.24	
Philadelphia ^a	84	44	63.0	5.38	Parker [†]	81	29	50.6	3.49
Philadelphia ^b	84	43	62.3	5.68	Parkston ^{*†}	84	34	50.0	5.10
Phoenixville	83	39	60.6	4.93	Rosebud [†]	89	31	50.0	5.26
Pleasant Mount ²	.....	52.8	7.30	Saint Lawrence ^{*†}	88	34	51.0	4.22	
Point Pleasant	.....	.....	5.88	Salem [†]	S2 ^d	22 ^d	48.4 ^d	5.22	
Port Carbon	87	37	60.8	5.42	Sioux Falls [†]	80	30	49.4	8.22
Pottstown	88	42	61.5	7.59	Spearsfield [†]	84	27	46.7	2.18
Quakertown ¹	85	34	58.5	5.08	Travare [†]	74	30	53.2	4.70
Reading [†] ²	.....	59.1	4.00	Tyndall [†]	82	31	50.8	5.41	
Ridgway [†]	7.83	.....	Vermillion [†]	76	30	51.4	8.84	
Saegerstown	87	30	54.0	8.95	Webster [†]	81	28	48.7	5.64
Salem Corners ¹	82	34	55.5	7.65	Wentworth [†]	80	29	48.0	7.55
Saltsburgh [†]	4.01	Wessington ^{Spgs} [†]	81	30	49.2	4.64	
Seisholtzville	.....	.....	5.13	Whitewood	.....	.....	5.22	.....
Seins Grove ¹	85	40	59.6	6.25	Wolsey ^{*†}	80	32	48.3	6.11
Smethport [†]	90	29	54.6	.....	Tennessee.	.....	.....	.....	.....
Smiths Corners	.....	.....	5.81	Andersonville [†]	90	43	60.1	3.83	
Somerset ¹	85	30	55.2	5.28	Arlington [†]	87	46	67.8	5.45
South Eaton	82	36	55.4	5.49	Ashwood ^{*†}	85	44	66.9	6.65
State College ¹	83	34	57.4	5.79	Austin ^{*†}	88	43	69.1	5.23
Stoyestown [†]	5.72	.....	Bethel Springs [†]	88	52	66.4	6.30	
Swarthmore	82	40	60.8	5.00	Bolivar [†]	83	50	66.2	4.89
Uniontown ¹	88	40	63.2	6.48	Brownsville [†]	90	46	70.2	5.57
Warren [†]	9.96	Charleston [†]	4.55	.....
Wellsborough ^{*†}	84	28	50.6	6.69	Clarksville [†]	86	42	65.2	4.79
West Chester	84	40	60.5	6.37	Clinton [†]	3.04	.....
West Newton [†]	4.35	Columbia [†]	8.02	.....
Westtown ¹	81 ^h	7.23	.....	Covington ^{a†}	84	46	67.4	7.24	
Wilkes Barre [†]	88	34	59.9	5.89	Covington ^{b†}	92	45	71.9	1.40
Wysox ¹	88	31	56.0	4.86	Dunlap [†]	3.49	.....
York	86	35	60.7	4.10	Dyersburgh [†]	89	46	69.0	6.62
Rhode Island.	.....	.....	.....	Fayetteville [†]	88	46	68.3	5.36	
Bristol ¹	76	37	53.5	4.40	Florence Station [†]	89	52	67.4	4.15
Kingston ^a	79	37	53.8	5.39	Franklin ^{*†}	88	50	68.4	5.41
Kingston ^b	76	38	53.7	6.09	Greenville [†]	83	40	63.1	5.66
Lonsdale	.....	.....	6.12	Hohenwald [†]	90	37	62.1	5.66	
Newport	79	41	55.6	.....	Jackson [†]	85	49	63.2	3.52
Olneyville	76	41	55.3	.....	Jackson ^{*†}	85	46	67.8	4.78
Fawtucket	79	43	58.2	5.72	Johnson City [†]	86	38	65.2	3.67
Providence ^a	81	39	57.9	6.07	Kingston [†]	4.30	.....
Providence ^b	78	33	55.8	5.63	Loudon [†]	4.30	.....
Providence ^c	76	36	54.4	5.93	Lynnhville [†]	86	44	66.2	8.64
South Carolina.	.....	.....	.....	McMinnville [†]	85	50	66.8	5.98	
Allendale [†]	93	48	73.0	2.73	Milan [†]	88	43	69.2	6.00
Anderson [†]	2.15	Missionary Ridge ^{*†}	53	60.2	6.24	.....
Batesburgh [†]	92	47	71.4	2.97	Newport [†]	88	49	63.1	3.13
Belmont [†]	90	40	70.0	2.67	Nunnally [†]	85	48	67.2	4.88
Blackbird [†]	92	47	73.8	6.51	Parksville [†]	88	42	66.9	4.34
Camden [†]	1.61	.....	Ridgleton [†]	85	39	65.3	4.49	
Cheraw ^{a†}	94	44	71.2	2.96	Rockwood [†]	4.27	.....
Cheraw ^{b†}	.....	.....	3.62	Rogersville ^{*†}	87	49	63.7	3.57	
Effingham [†]	2.95	Saxtons River [†]	92	32	58.1	2.03	
Florence [†]	93	45	73.4	3.33	Springdale [†]	92	40	66.5	3.11
Green Pond [†]	90	46	70.8	2.07	Strawberry Plains [†]	3.38	.....
Greenwood [†]	86	39	64.8	3.42	Sweet Water [†]	88	43	49.0	3.40
Hardeeville [†]	90	50	71.3	2.95	Waynesborough [†]	86	39	65.5	3.41
Kingstreet [†]	94	48	71.8	5.52	Texas.	.....	.....	.....	.....
Mount Carmel [†]	1.12	Albany ^{*†}	98	50	73.8	3.95	
Nichols [†]	3.70	Arthur City [†]	15.60	.....
Port Royal ^{*†}	86	56	72.8	2.41	Austin ^b	92	46	75.0	4.55
Saint Georges [†]	90	48	71.0	4.35	Belton [†]	99	42	77.0	2.02
Saint Matthews [†]	91	49	72.2	2.45	Brady [†]	96	45	72.5	2.51
Saint Stephens [†]	4.68	.....	Brazoria [†]	87	48	74.3	0.54	
Simpsonville ^{*†}	94	42	68.7	1.44	Brenham [†]	95	47	76.6	1.98
Society Hill [†]	88	49	69.8	2.67	Brownwood [†]	90	45	72.8	2.87
Statesburgh [†]	88	50	70.2	2.90	Burnet [†]	86	52	73.9	5.26
Tillers Ferry [†]	3.29	.....	Camp Eagle Pass	107	50	82.8	6.24	
Trial [†]	88	49	70.4	8.67	College Station	98	49	71.5	0.60
Wateree [†]	3.21	.....	Colorado [†]	91	46	75.4	3.54	
Winniborough [†]	92	45	70.2	3.17	Columbus [†]	90	48	76.2	4.05
Yorkville [†]	88	48	69.0	3.30	Columbia [†]	90	27	56.2	2.45
South Dakota.	.....	.....	.....	Columbian [†]	90	27	56.2	2.45	
Aberdeen [†]	78 ^g	24 ^g	49.05	3.72	Columbian [†]	90	27	56.2	2.45
Bowdle	.....	.....	4.05	Corsicana [†]	90	48	76.2	0.29	
Britton [†]	80	27	46.0	3.62	Cuarto [†]	94	44	72.4	4.55
Brookings [†]	76	28	47.9	7.32	Cuero [†]	94	52	78.1	4.55
Carthage	.....	.....	6.10	Dallas ^{a†}	94	52	78.1	4.55	
Castilewood [†]	81	23	47.0	4.44	Dallas ^{b†}	94	42	73.1	4.55
Clark [†]	79	28	48.0	7.58	Devine [†]	95	50	74.3	4.59
Cross [†]	76	18	43.6	6.09	Durham [†]	98	48	78.6	1.08
De Smet [†]	80	25	47.0	6.48	Duval [†]	94	56	76.8	1.95
Elkton [†]	69	26	44.9	9.69	Eastland [†]	100	49	73.0	4.55
Faulkton [†]	82	28	47.9	3.19	Elmendorf [†]	98	44	76.5	1.98
Flandreau [†]	79	28	44.6	7.79	Floydada [†]	92	41	66.6	0.14
Forestburg [†]	80	30	49.4	6.29	Forestburgh [†]	94	42	69.4	11.77
Forest City [†]	88	33	54.1	.....	Fort Clark	102	50	78.8	2.00
Fort Meade [†]	82	27	47.9	3.30	Fort Hancock	98	32	67.7	0.00
Fort Randall	87	30	51.0	4.25	Fort McIntosh	105	56	82.6	1.65
Fort Sully	88	32	50.6	2.65	Fort Ringgold	109	55	84.0	1.15
Frankfort [†]	90	21	48.2	4.65	Woodstock [†]	3.13	.....

Meteorological record of voluntary observers, &c.—Continued.

Stations.	Temperature. (Fahrenheit.)			Precip'n.	Stations.	Temperature. (Fahrenheit.)			Precip'n.	Stations.	Temperature. (Fahrenheit.)			Precip'n.
	Max.	Min.	Mean			Max.	Min.	Mean			Max.	Min.	Mean	
South Dakota—Cont'd.	o	o	o	Ins.	Texas—Cont'd.	o	o	o	Ins.	Washington.	o	o	o	Ins.
Gary [†]	75	27	47.2	4.16	Ft Worth [†]	95	44	72.0	2.20	Aberdeen [†]	82	37	53.1	5.04
Gettysburgh	.....	.....	.....	.....	Fredericksb ^{gh} [†]	91	45	72.7	3.30	Centreville [†]	90	29	57.3	1.08
Grand View	.....	.....	.....	.....	Gainesville [†]	91	42	69.0	14.32	Chesal [†]	80	38	55.8	1.99
Hitchcock	.....	.....	.....	.....	Graham [†]	53	54	72.						

Meteorological record of voluntary observers—Continued.

Stations.	Temperature. (Fahrenheit.)			Precip'n.	Stations.	Temperature. (Fahrenheit.)			Precip'n.
	Max.	Min.	Mean			Max.	Min.	Mean	
Wisconsin—Cont'd.	o	o	o	Ins.	Wyoming—Cont'd.	o	o	o	Ins.
Richland Centre†	78	33	53.4	9.81	La Barge†	84	14	50.0	1.50
Shawano	75	28	50.6	5.83	Lander	81	11	48.0	4.25
Shell Lake	72	26	49.4	6.29	Laramie	71	25	44.4	1.16
Sparta b†	84	32	53.0	6.55	Lusk†	80	25	46.2	3.23
Valley Junction†	82	30	51.4	7.11	Saratoga†	74	23	48.1	2.65
Viroqua	75	31	51.1	8.17	Sundance	78	21	43.0	2.36
Watertown	77	33	52.6	5.95	Wheatland†	84	29	50.8	4.90
Waukesha†			7.49						
Westfield†	77	30	51.8	5.63	Canada.				
Weston† ^a	78	36	50.2	7.66	Fort Francis, Ont.	72	23	42.9	6.01
Whitehall†	77	30	52.4	6.73	Mexico.				
Wittenberg†	82	27	50.7	7.95	La Logia	94	48	74.6	T.
Wyoming.					Leon de Aldamas	94	55	74.6	0.05
Bitter Creek†	74	30	52.3	2.50	Mazatlan	84	60	74.8	0.31
Camp Pilot Butte	80	24	48.0	1.82	Mexico	86	51	67.2	0.66
Casper†	92 ^d	31 ^d	53.4 ^d	0.36	Puebla	86	53	67.8	1.57
Fort Fetterman	89	30	52.2	0.70	Vera Cruz	90	72	82.3	1.80
Fort Laramie†	83	32	49.1	4.32	New Brunswick.				
Fort McKinney	83	18	45.6	2.18	Saint John.				3.07
Fort Washakie	79	16	47.6	3.51	West Indies.				
Fort Yellowstone	73	16	42.1	2.06	Hamilton, Ber ¹	78	57	68.5	0.73

Received too late for publication in April, 1892.

Alabama.				8.00	Texas.				
Warrior†					Childress† ¹	104	28	62.1	0.00
California.					Corsicana a†	91 ^c	42 ^d	67.6 ^d	0.97
Campo *†	59	.....	1.25		Haskell†	92	40	66.0	0.31
Colorado.					Panter *† ³	96	46	65.9	1.24
Greenhorn† d.	76	II	42.8	2.70	Quanah†	96	32	64.6	0.75
Lake.					Round Rock†	92	46	72.4	0.64
T. S. Ranch†			1.61		Sulphur Springs†	95 ^e	36 ^c	67.0 ^c	3.45
Indiana.					Utah.				
Valparaiso†	78	23	44.5	2.05	Scofield† m.	70	14	40.7	0.00
Kansas.					Virginia.				
Belleview†	87 ^f	18 ⁱ	54.2 ⁱ	2.16	Hot Springs	74	19	48.3	.....
Mankato†	89	23	49.4	4.50	Warm Springs	62	22	42.6	.....
New England Ranch	92	23	50.4	0.67	Wisconsin.				
Norton†	92	23	49.2	1.93	Juneau†	73	24	42.6	2.86
Missouri.					Wyoming.				
Centreville					Saratoga† ¹	68	12	38.4	1.85
Chillicothe b†	78	28	51.7	6.52	Mexico.				
Montana.					Mazatlan	81	58	70.2	0.19
Powder River†	75 ^a	25 ^a	46.5 ^a	2.16	Mexico	84	50	66.2	0.33
South Carolina.					Topolobampo	90	61	69.6	0.00
Cheraw b†					Vera Cruz	90	72	80.0	T.
South Dakota.									
Tyndall†	83	18	45.3	6.38					

Reports received too late to be used in general discussion of weather for May, 1892.

Arizona.				58.4	1.00	North Carolina.			
Eagle Pass ²						Lexington†	91	40	67.0
Arkansas.						3.10			
Mount Nebo†	86	37	64.4	14.20		Willow City†	76	23	46.1
California.						0.50			
Upper Mattole*†	93	40	57.2	5.80		Hassan * ³	88	42	58.6
Illinois.						5.95			
Paris†	88	33	61.1	10.70		Wheeler† ²		55.2	10.26
Shawneetown†				3.80		Oregon.			
Louisiana.						Eugene	85	38	57.0
Alexandria†	90	42	70.2	2.76		1.79			
Massachusetts.						Happy Valley†	88	27	50.6
Amherst.						1.75			
Missouri.						Pennsylvania.			
Harrisonville*† ²	81	30	56.8	5.96	Grainger Hills ¹	84	34	56.5	7.13
Rolla†	92	36	58.3	10.75	South Carolina.				
Montana.					Spartanburg† ²	92	56	75.2	2.36
Cokedale* ¹	91	20	51.1	1.90	South Dakota.				
Glendive†	101	24	51.4	3.25	Alexandria†	86	29	49.8	8.08
New York.					Tennessee.				
Angelica† ¹	86	29	53.0	7.31	Carthage†				
Arkwright ⁷	80	32	51.5	.....	Johnsonville†				
Boys Corner ¹	84	45	60.6	5.74	4.33				
Brentwood.									
Carmel.									
Lyons ¹	83	37	57.9	5.41					
	86	38	54.8	4.06					
Lyon Mountain ^a	75	30	47.4	.....				
Rondout† ⁷	80	38	55.6	5.39					
Saratoga ⁷	82	31	56.1	.....				
S. E. Reservoir				5.84					

*Extremes of temperature from observed readings of dry thermometer.

† Weather Bureau instruments.

A numeral following the name of a station indicates the hours of observation from which the mean temperature was obtained, thus:

¹ Mean of 7 a. m. + 2 p. m. + 9 p. m. + 9 p. m. + 4.² Mean of 8 a. m. + 8 p. m. + 2.³ Mean of 7 a. m. + 7 p. m. + 2.⁴ Mean of 6 a. m. + 6 p. m. + 2.⁵ Mean of 7 a. m. + 2 p. m. + 2.⁶ Mean from readings at various hours reduced to true daily mean by special tables.⁷ Mean from hourly readings of thermograph.

The absence of a numeral indicates that the mean temperature has been obtained from daily readings of the maximum and minimum thermometers.

An italic letter following the name of a station, as "Livingston a," "Livingston b," indicates that two or more observers, as the case may be, are reporting from the same station. A small Roman letter following the name of station indicates the number of days missing from the record, for instance, "ii" denotes 14 days missing.

A small Roman letter in figure columns indicates the number of days missing from the record; example, "ii" four days missing, etc.

Note.—The following changes have been made in names of stations: Childersburgh, Ala., changed to Wilsonville; Fremont, Kans., changed to Moreland; Gallinas, Tex., changed to Elmendorf; Doe Bay, Wash., changed to Olga.

Corrections—Georgia: "Adairsville" for February, March, and April, 1892, should read "Adairsville." Kansas: "Fort Scott," from August, 1891, to January, 1892, inclusive, and "Fort Scott (a)," from February to April, 1892, inclusive, should read "Mar-maton." California: April, 1891, Spadra, mean temperature should read 60.1; June, 1891, Caliente, mean temperature should read 72.2; June, 1891, Elmira, mean temperature should read 70.5; June, 1891, Volcano Springs, mean temperature should read 88.7; July, 1891, Fort Mason, mean temperature should read 58.4; July, 1891, Modesto, mean temperature should read 81.8; July, 1891, Monterey, mean temperature should read 56.5.

Data from Canadian stations for the month of May, 1892.

Station.	Pressure.		Temperature.		Precipitation.		Prevailing direction of wind.
	Mean not reduced.	Mean reduced.	Departure from normal.	Mean.	Departure from normal.	Total.	
Saint Johns, N. F.	Inches.	Inches.	Inches.	o	o	Inches.	ne.
Sydney, N. S.	29.80	29.95	.....	39.7	- 4.7	3.43	sw.
Anticosti.	29.90	29.93	- 0.2	39.6	- 1.1	3.77	se.
Halifax, N. S.	29.85	29.98	.00	46.2	- 0.8	5.46	n.
Grand Manan, N. B.	29.91	29.96	.....	46.6	.....	4.21	ne.
Yarmouth, N. S.	29.90	29.98	+ .02	46.6	- 0.4	5.48	sw.
Saint Andrews, N. B.	29.88	29.93	.....	47.2	.....	1.81	so.
Charlottetown, P. E. I.	29.91	29.95	.....	45.0	.....	4.16	nw.
Chatham, N. B.	29.92	29.94	- .04	46.8	+ 0.8	3.10	ne.
Father Point, Que.	29.91	29.94	0.00	43.4	- 0.1	2.35	e.
Quebec, Que.	29.61	29.94	- 0.1	48.6	- 0.9	3.46	n.
Montreal, Que.	29.74	29.95	+ .01	52.0	- 2.0	2.15	ne.
Rockcliffe, Ont.	29.41	29.97	- .02	50.6	+ 1.1	0.94	nw.
Kingston, Ont.	29.62	29.94	- 0.2	50.9	- 2.1	3.46	ne.
Toronto, Ont.	29.57	29.93	- 0.2	50.9	- 2.1	3.49	e.
White River, Ont.	28.94	29.99	.....	46.0	.....	0.16	n.
Port Stanley, Ont.	29.31	29.95	.....	51.0	.....	7.24	sw.
Saugeen, Ont.	29.23	29.95	- .01	50.4	+ 0.4	2.37	se.
Parry Sound, Ont.	29.25	29.95	+ .01	50.3	- 0.2	1.96	sw.
Port Arthur, Ont.	29.24	29.94	+ .03	46.0	- 0.5	2.22	ne.
Winnipeg, Man.	29.16	29.99	+ .05	45.8	- 4.2	1.85	ne.
Minnedosa, Man.	29.17	29.98	+ .09	43.4	- 5.6	1.38	sw.
Qu'Appelle, Assiniboina.	27.70	30.02	+ .14	43.0	- 7.0	1.43	se.
Medicine Hat, Assiniboina	27.67	29.97	+ .11	48.4	- 7.1	1.03	n.
Swift Current, Assiniboina	27.44	30.02	+ .13	45.2	- 5.8	3.16	sw.
Calgary, Alberta.	26.42	29.97	+ .09	43.8	- 7.2	0.06	w.
Prince Albert, Saskatchewan	28.48	30.00	.....	43.4	.....	1.49	nw.
Esquimault, B. C.	29.96	29.99	0.00	51.6	- 1.0	1.95	s.
Stony Mountain, Man.							
Port Moody, B. C.							
St. Albans, Man.							
Edmonton, Alberta.	27.67	30.01	.....	46.8	.....	0.19	ne.
Battleford, Saskatchewan	28.26	29.99	.....	46.8	.....	0.71	se.
Grindstone, Gulf St. L.							
Hamilton, Bermuda.							
Spences Bridge, B. C.	29.12	29.93	.....	57.8	.....	0.62	w.
Sandy Point, N. F.	29.00	29.92	.....	42.6	.....	0.85	ne.
Prince Albert, Feb., '92.	28.48	30.15	.....	5.4	.....	0.59	e.
Prince Albert, Mar., '92.	28.47	30.08	.....	12.8	.....	0.27	e.
Prince Albert, Apr., '92.	28.49	30.04	.....	33.0	.....	0.20	se.

Table of miscellaneous meteorological data for May, 1892—Weather Bureau observations.

Districts and stations.	Elevation above sea level, feet.	Length of record, years.	Pressure, in inches.		Temperature of the air, in degrees Fahrenheit.				Humidity and precipitation.			Wind.		Mean temperature data since opening of station.		
			Mean pressure, s. a. m. and 8 p. m. + 2.	Mean reduced.	Departure from normal.	Mean maximum.	Date.	Mean minimum.	Date.	Greatest daily range.	Mean temperature of the dew-point.	Precipitation, in inches.	Total movement, miles per hour.	Maximum velocity.	Cloudless days.	
			Mean max. and min. + 2.	Departure from normal.	Maximum.	Date.	Mean minimum.	Date.	Mean minimum.	Days with .01 or more.	Departure from normal.	Direction.	Miles per hour.	Direction.	Partly cloudy days.	
New England.																
Eastport	53	20	29.89	29.95	— .01	53.0	— 0.9	47.0	— 0.1	69	17	53	30	1	41	21
Portland	99	21	29.55	29.95	— .02	51.4	— 2.1	77	16	53	32	1	44	31	40	
Manchester	247	6	29.72	29.98	— .04	54.0	— 1.1	80	31	63	28	1	44	35	40	
Northfield	872	6	29.04	29.98	— .05	49.6	— 0.1	80	31	59	24	1	40	35	42	
Boston	125	22	29.85	29.99	+ .01	55.9	— 0.3	78	26	63	39	1	49	33	43	
Nantucket	14	6	29.99	30.00	—	51.8	— 0.6	67	18	58	41	14	42	17	45	
Woods Hole	22	15	.....	.....	.....	51.8	— 2.6	68	18	58	37	1	46	20	.....
Vineyard Haven	6	.....	.....	.....	.....	55.4	— 0.5	73	31	64	36	1	47	26	.....
Block Island	27	12	29.95	30.01	+ .01	51.8	— 0.5	69	16	57	42	1	47	21	46	
Narragansett Pier	22	11	.....	.....	.....	55.2	— 0.6	80	16	65	38	1	47	37	.....
New Haven	107	20	29.86	29.98	— .02	50.1	— 0.5	79	16	64	39	1	48	30	49	
New London	47	22	29.93	29.98	— .03	51.6	— 1.6	81	16	62	40	10	47	32	46	
Md. Atlantic States.						52.4	— 0.0	.....	.....	.....	.....	.....	.....	.....	.....
Albany	85	19	29.88	29.97	— .01	56.7	— 2.6	83	31	64	36	1	47	26	.....
New York, N. Y.	155	22	29.78	29.95	— .01	59.4	— 0.1	81	2	68	42	8	51	31	45	
Harrisburg	377	4	29.58	29.99	— .01	60.0	— 0.1	83	2	69	41	8	51	32	49	
Philadelphia	117	22	29.88	30.00	— .02	61.9	— 0.1	84	31	71	44	8	53	34	50	
Atlantic City	53	19	29.95	30.00	— .01	57.4	+ 0.4	80	16	64	40	8	51	27	50	
New Brunswick .....	.....	.....	.....	.....	.....	50.0	— 0.0	82	2	71	36	1	49	35	.....
Baltimore	179	22	29.80	29.99	— .03	63.4	— 0.5	87	2	73	46	8	54	30	51	
Washington, D. C.	112	22	29.89	30.01	— .02	63.8	+ 0.2	89	4	74	44	9	54	36	52	
Cape Henry	19	.....	.....	.....	.....	66.1	+ 1.3	87	15	77	41	5	57	34	.....
Lynchburgh	685	21	29.29	30.02	+ .01	66.2	+ 0.5	92	15	77	43	9	55	30	50	
Norfolk	57	22	29.95	30.02	— .00	67.0	+ 1.2	93	6	77	46	1	57	39	57	
S. Atlantic States.						70.0	— 0.0	.....	.....	.....	.....	.....	.....	.....	.....
Charlotte	773	14	29.22	30.03	+ .01	68.2	— 0.3	89	*	79	44	24	49	27	54	
Hatteras	11	12	30.07	30.05	+ .05	66.0	+ 0.1	75	31	71	50	1	62	18	61	
Kitty Hawk	9	18	30.03	30.04	—	66.2	+ 0.4	88	*	74	47	1	59	33	59	
Raleigh	388	6	29.63	30.04	—	67.6	— 0.1	91	6	78	44	9	55	31	56	
Southport	34	17	30.04	30.07	—	68.1	+ 2.3	81	27	74	52	23	63	18	64	
Wilmington	78	22	30.00	30.05	+ .06	69.7	+ 0.3	86	16	78	49	9	62	22	50	
Charleston	52	21	30.03	30.05	+ .05	72.0	— 0.7	89	27	79	53	23	65	20	62	
Columbia	5	.....	.....	.....	.....	71.4	— 0.1	94	5	83	45	46	30	61	51
Augusta	209	21	29.86	30.08	+ .05	71.6	— 1.2	92	6	82	47	24	61	29	57	
Savannah	87	22	30.00	30.09	+ .05	72.8	— 0.7	91	27	82	51	24	64	20	61	
Jacksonville	43	21	30.04	30.09	+ .07	75.2	+ 0.1	92	27	86	52	23	65	30	62	
Florida Peninsula.						75.0	— 0.8	.....	.....	.....	.....	.....	.....	.....	.....
Jupiter	28	5	30.06	30.09	—	75.8	— 0.3	93	22	83	57	24	68	78	2.28	
Key West	22	22	30.06	30.08	+ .07	78.2	— 1.6	86	31	83	68	3	74	67	69	
Micco	4	.....	.....	.....	.....	76.8	— 0.4	94	19	86	52	24	66	30	55
Tampa	35	.....	30.05	30.09	—	75.4	— 0.1	91	*	86	55	21	65	75	75
Titusville	44	5	30.06	30.10	—	74.8	— 0.1	90	29	83	56	24	67	27	76	
Eastern Gulf States.						72.2	— 0.8	.....	.....	.....	.....	.....	.....	.....	.....
Atlanta	I, 131	14	28.88	30.06	+ .01	68.8	— 0.0	88	31	78	45	24	68	78	2.30	
Pensacola	50	13	29.99	30.05	+ .03	73.4	— 0.7	85	30	80	52	23	67	60	61	
Auburn	12	.....	.....	.....	.....	71.2	— 0.1	88	14	80	47	23	62	31	33
Mobile	35	22	29.99	30.03	+ .02	72.4	— 1.7	85	18	80	50	22	65	23	55	
Montgomery	217	20	29.81	30.04	—	73.0	+ 0.3	93	16	84	47	24	69	57	67	
Meridian	358	22	29.64	30.02	—	70.8	— 0.8	88	14	92	44	22	66	31	52	
Vicksburg	254	21	29.71	29.97	— .03	71.9	— 1.1	90	30	81	47	24	63	25	30	
University	5	.....	.....	.....	.....	69.0	— 0.1	88	30	79	46	21	56	30	31
New Orleans	54	22	29.98	30.04	+ .05	74.0	— 1.1	88	30	81	55	22	66	20	64	
Port Eads	6	.....	.....	.....	.....	75.2	— 0.2	83	16	81	65	23	69	13	20
Western Gulf States.						72.0	— 0.8	.....	.....	.....	.....	.....	.....	.....	.....
Shreveport	249	21	29.68	29.94	— .04	71.6	— 2.7	92	30	81	46	22	62	28	3.35	
Fort Smith	492	10	29.43	29.94	— .00	66.7	— 2.6	89	29	75	42	22	53	31	55	
Little Rock	309	13	29.63	29.96	— .02	67.4	— 2.9	85	4	75	45	22	60	24	58	
Brownsville	57	15	.....	.....	.....	71.2	— 0.1	88	14	80	47	23	62	31	33
Corpus Christi	20	6	29.90	29.92	— .05	76.7	— 0.8	81	31	80	60	23	78	62	66	
Galveston	42	22	29.95	29.99	+ .01	75.6	— 0.4	84	18	79	54	22	72	67	72	
Palestine	511	11	29.41	29.95	— .04	72.3	+ 0.3	91	30	81	43	22	64	27	65	
San Antonio	679	15	29.22	29.92	— .03	78.2	+ 3.2	96	28	89	50	22	65	34	61	
Ohio Val. & Tenn.						64.6	+ 1.1	.....	.....	.....	.....	.....	.....	.....	.....
Chattanooga	783	14	29.23	30.05	+ .03	68.2	— 0.1	90	5	79	44	24	57	33	55	
Knoxville	980	22	29.01	30.04	+ .01	65.2	— 0.0	88	31	75	42	24	56	34	53	
Memphis	330	22	29.64	29.99	— .00	68.6	— 1.4	86	17	77	48	30	55	56	57	
Nashville	553	22	29.41	29.99	—	67.3	— 0.7	87	5	77	44	24	55	31	54	
Lexington	9	21	28.92	29.97	— .02	68.2	— 0.6	86	31	72	41	23	54	27	52	
Louisville	551	21	29.38	29.97	— .02	64.7	— 1.4	88	31	73	45	21	56	26	53	
Indianapolis	766	22	29.29	29.95	— .05	60.0	— 2.9	87	31	70	41	8	54	30	52	
Cincinnati	628	22	29.29	29.95	— .03	62.4	— 2.1	87	31	70	41	8	54	30	52	
Columbus	837	14	29.08	29.95	— .07	61.0	— 0.7	86	31	70	35	8	52	31	51	
Pittsburg	847	22	29.07	29.97	— .03	61.2	— 1.3	88	31	70	36	8	53	33	45	
Parkersburg	638	4	29.32	30.00	—	62.4	— 0.1	90	31	73	36	8	52	35	55	
Lower Lake Region.						54.7	— 1.6	.....	.....	.....	.....	.....	.....	.....	.....
Buffalo	690	22	29.20	29.94	— .04	52.4	— 1.3	88	31	60	36	8	45	31	41	
Oswego	335	22	29.59	29.96	— .03	50.9	— 2.9	86	31	55	38	8	44	34	43	
Rochester	523	22	29.41	29.98	— .06	55.0	+ 0.5	91	31	64	37	8	46	32	49	
Erie	714	19	29.18	29.91	— .04	53.9	— 1.8	87	31	60	38	8	47	30	48	
Cleveland	749	22	29.15	29.95	— .05	55.8	— 0.9	86	31	63	38	8				

Table of miscellaneous meteorological data for May, 1892—Weather Bureau observations—Continued.

Districts and stations.	Elevation above sea-level, feet.	Length of record, years.	Pressure, in inches.	Temperature of the air, in degrees Fahrenheit.								Humidity and precipitation.				Wind.				Cloudless days.				Mean temperature data since opening of station.								
				Mean pressure, 8 a.m. and 8 p.m. + 2.	Mean reduced.	Departure from normal.	Mean max. and min. + 2.	Departure from normal.	Maximum.	Date.	Mean maximum.	Minimum.	Date.	Mean minimum.	Greatest daily range.	Mean temperature of the dew-point, relative humidity, per cent.	Precipitation, in inches.	Departure from normal.	Days with 0.1 or more.	Total movement, miles.	Prevailing direction.	Miles per hour.	Partly cloudy days.	Average cloudiness, tenths.	Highest for month.	Year.	Lowest for month.	Year.				
				Mean max. and min. + 2.	Mean reduced.	Departure from normal.	Mean max. and min. + 2.	Departure from normal.	Maximum.	Date.	Mean maximum.	Minimum.	Date.	Mean minimum.	Greatest daily range.	Mean temperature of the dew-point, relative humidity, per cent.	Precipitation, in inches.	Departure from normal.	Days with 0.1 or more.	Total movement, miles.	Prevailing direction.	Miles per hour.	Partly cloudy days.	Average cloudiness, tenths.	Highest for month.	Year.	Lowest for month.	Year.				
<i>Ec. Northwest—Con.</i>																																
Bismarck.....	1,698	18	28.18	30.01	+ .12	46.3	- 8.0	76	22	55	24	4	37	35	34	68	1.79	- 0.8	12	8,459	e.	nw.	48	18	6	9	16	6.6	60.1	1881	46.3	1892
Fort Buford.....	1,899	14	27.99	30.01	+ .12	47.2	- 7.1	85	22	53	21	4	37	40	34	65	0.49	- 1.4	9	7,745	w.	nw.	42	17	6	11	14	6.7	58.3	1887	47.2	1892
<i>Upper Miss. Valley.</i>																																
Minneapolis.....	*																															
Red Wing.....	758	22	29.08	29.91	- .05	51.8	- 6.4	72	18	60	30	20	43	28	42	71	6.00	- 1.9	19	6,995	e.	nw.	40	19	2	14	15	7.2
Saint Paul.....	850	22	29.01	29.93	- .05	51.8	- 6.4	74	17	59	32	20	44	25	39	68	5.17	- 1.9	21	6,550	nw.	36	19	6	14	17	7.6	64.1	1887	49.8	1888	
La Crosse.....	720	20	29.13	29.91	- .05	53.0	- 5.0	76	17	60	32	20	49	27	43	71	7.05	- 3.8	21	5,167	nw.	28	19	2	15	14	7.3	67.7	1881	51.7	1888	
Davenport.....	613	21	29.26	29.92	- .05	54.0	- 4.4	75	5	63	36	20	49	32	48	77	8.84	- 4.4	20	9,169	e.	w.	46	19	4	10	17	7.6	68.1	1881	52.5	1888
Des Moines.....	869	14	28.95	29.89	- .05	54.8	- 6.4	75	17	62	35	20	49	27	47	82	9.19	- 5.1	20	4,895	e.	nw.	36	17	5	5	21	7.6	67.4	1880	54.5	1888
Dubuque.....	651	19	29.19	29.89	- .07	55.2	- 4.0	75	*	62	36	20	49	32	48	82	9.19	- 5.1	20	4,895	e.	nw.	48	19	1	9	21	8.1	67.7	1881	53.9	1888
Keokuk.....	613	21	29.23	29.89	- .05	58.1	- 4.1	78	24	66	35	21	50	30	50	77	6.34	- 2.2	20	6,202	w.	48	19	5	8	17	6.969	5.8	1881	56.8	1882	
Cairo.....	359	21	29.57	29.90	- .09	56.0	- 1.1	83	4	73	46	21	59	23	56	73	5.55	- 1.7	15	7,759	s.	43	19	25	6	14	11	6.2	7.7	1880	63.8	1882
Springfield, Ill.....	644	13	29.23	29.91	- .05	59.0	- 3.4	83	5	67	38	*	51	20	51	75	7.51	- 2.3	24	4,140	s.	42	19	2	10	19	7.7	69.3	*	57.9	1882	
Hannibal.....	534	20	29.32	29.89	- .05	59.3	- 3.0	86	5	68	36	21	59	29	51	77	8.28	- 2.4	24	7,554	s.	42	19	3	8	20	7.2	...	...	...	...
Saint Louis <i>Missouri Valley.</i>	571	22	29.30	29.91	- .05	62.8	- 0.2	87	5	70	40	21	55	25	52	71	7.87	- 3.8	15	9,225	s.w.	47	19	2	11	19	7.471	4	1887	59.5	1882	
Columbia.....	*																															
Kansas City.....	963	4	28.88	29.90	- .05	59.8	- 2.8	81	2	68	33	21	52	25	53	78	8.23	- 2.0	20	5,921	n.w.	34	18	2	14	15	6.9	63.6	1890	59.8	1892	
Springfield, Mo.....	1,356	7	28.49	29.91	- .05	62.6	- 4.6	83	28	71	35	21	54	30	55	77	9.90	- 3.0	17	8,534	s.	44	19	1	18	12	7.0	64.6	1890	59.7	1892	
Leavenworth.....	857	21	28.99	29.91	- .05	59.0	- 3.4	82	25	67	38	21	51	25	49	73	8.60	- 3.4	20	8,287	n.w.	48	18	2	10	19	7.570	6.1	1880	59.6	1892	
Topeka.....	*																															
Omaha.....	1,113	22	28.74	29.93	- .02	54.2	- 7.8	78	29	62	37	21	50	47	26	76	8.43	- 3.9	18	7,830	n.	38	18	1	13	14	6.7	69.4	1890	54.2	1892	
Crete.....	*																															
Valentine.....	2,613	7	25.26	30.01	+ .07	48.4	- 8.6	85	27	57	31	*	40	44	38	74	4.65	+ 0.9	24	8,871	n.w.	52	19	6	6	20	6	7.3	61.1	1887	48.4	1892
Sioux City.....	1,158	20	28.68	29.93	- .05	52.4	- 4.4	78	29	60	34	7	45	29	44	76	8.50	- 5.0	17	8,975	n.w.	46	18	6	6	21	6.6	7.3	1890	55.8	1892	
Pierre.....	1,470	20	28.42	29.99	- .05	49.4	- 4.4	87	27	58	32	1	40	37	40	74	4.65	- 2.0	17	7,073	n.w.	38	18	5	10	19	6.9	...	...	...	...
Huron.....	1,310	11	28.55	29.97	+ .01	48.4	- 7.1	81	27	57	30	7	40	41	39	73	6.03	- 2.0	17	11,023	n.w.	56	19	2	12	17	7.562	7	1887	48.4	1892	
Yankton <i>Northern Slope.</i>	1,232	19	28.64	29.90	- .04	51.4	- 8.6	80	23	59	32	20	43	33	41	73	6.13	- 1.8	19	9,414	n.w.	48	19	2	12	17	7.8	66.1	1890	51.4	1892	
Havre f.....	2,477	12	27.38	30.00	+ .09	48.0	- 5.3	85	22	59	24	6	37	48	34	66	0.86	- 0.6	12	7,315	n.e.	33	n.w.	18	4	17	10	6.8	57.0	1884	48.0	1892
Miles City.....	2,374	...	27.49	29.99	- .05	49.5	- 6.0	88	23	70	35	22	45	45	39	64	1.43	- 1.0	15	5,809	s.e.	22	3	15	13	7.2	...	...	...	...	...
Helena.....	4,118	13	25.79	30.01	+ .08	47.7	- 5.3	85	22	57	25	21	41	35	41	50	1.51	- 0.1	13	6,001	s.w.	40	27	5	11	15	6.7	55.4	1881	47.7	1892	
Rapid City.....	3,280	8	26.62	30.01	+ .08	47.2	- 5.4	84	22	55	28	24	40	39	40	57	4.49	- 0.2	20	6,817	n.w.	48	20	5	10	19	7.1	59.1	1881	47.2	1892	
Cheyenne.....	6,105	22	23.93	29.99	+ .07	46.7	- 5.3	76	22	56	25	3	40	35	40	57	3.40	- 1.3	12	6,324	n.w.	35	20	5	10	12	6.559	5.8	1874	45.7	1892	
Lander.....	5,377	...	24.60	29.97	- .07	46.8	- 5.3	79	22	59	30	5	44	34	31	62	3.44	- 0.1	10	5,481	n.w.	39	23	11	12	8	4.8	...	...	...	...
Kearny.....	2,173	17	27.64	29.92	- .05	51.3	- 5.0	84	23	60	33	9	43	38	41	72	4.75	- 0.7	17	12,170	n.e.	48	20	5	10	12	6.9	...	...	...	...
North Platte <i>Middle Slope.</i>	2,841	18	27.04	30.00	+ .07	52.1	- 6.4	89	23	62	31	9	41	37	30	77	3.70	- 0.8	14	9,300	n.e.	51	n.w.	19	4	16	11	6.6	63.0	1886	52.1	1892
Denver.....	5,287	21	24.72	29.99	+ .07	51.5	- 5.1	81	23	62	32	9	41	39	33	59	2.14	- 0.6	15	6,517	n.w.	40	n.	20	7	12	12	6.2	61.0	*	51.5	1892
Pueblo.....	4,734	4	25.19	29.99	- .05	57.5	- 5.5	88	23	70	35	22	45	45	39	47	1.77	- 0.5	17	7,420	n.w.	44	s.w.	4	7	16	8	5.4	59.8	1889	57.5	1892
Concordia.....	1,410	8	25.44	29.93	- .05	55.8	- 6.0	84	25	64	30	21	47	35	48	78	9.51	+ 5.3	18	7,482	n.	35	n.w.	15	6	9	10	6.6	68.2	1892	55.8	1892
Dodge City.....	2,523	18	27.29	29.90	- .01	57.8	- 5.6	83	23	64	34	10	47	37	48	76	1.65	- 0.4	14	9,529	n.e.	46	s.e.	16	6	10	9	5	7.683	1892	53.8	1892
Wichita.....	1,306	4	28.44	29.88	- .05	61.7	- 7.7	81	20	63	21	52	31	52	47	54	5.83	-														

Blank page retained for pagination